

(488±45 preoperatively, to 431±37 mm at 5 years). ORA measurements showed no significant differences in corneal hysteresis (CH) and corneal resistance factor (CRF) before and 1 year after treatment.

**Conclusion:** These results demonstrate that traditional CXL is effective and safe option in stabilizing the progression of keratoconus. There was no intra- or postoperative complications except temporary corneal epithelial defect and haze. Corneal endothelial count remained stable without significant decrease. ASOCT showed the collagen cross linking effects in the stroma. There were no cases of progression after 5 years of epi-off CXL.

## CLINICAL RESULTS OF EXCIMER LASER CORRECTION FOR THE CORRECTION OF INDUCED AMETROPIA AFTER PENETRATING KERATOPLASTY

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**Purpose:** To demonstrate the main technological approaches and clinical results of excimer laser correction of induced astigmatism after penetrating keratoplasty.

**Methods:** The study includes of 6 patients (7 eyes) aged 23 - 35 years, after penetrating keratoplasty due to keratoconus, with a high degree of postoperative astigmatism and irregularity of the corneal surface. All patients underwent standard preoperative examination, including endothelial cells density and topographic analysis of anterior and posterior surface of the cornea (Tomey TMS 5, Japan). Patients were followed up for two years after keratoplasty. Was performed one-step LASIK using installation "Microscan Vizum".

Superficial corneal flap from 70 to 100 microns thickness was performed with a microkeratome ML7 (Med-Logics, USA). Terms of follow-up was between 3 to 10 years after Lasik.

**Results:** The results show the benefits of refractive excimer laser intervention after penetrating keratoplasty, confirms the significant topographic improvements of the anterior surface of the cornea. It was obtained high uncorrected visual acuity after refractive surgery, in comparison with the preoperative maximal corrected visual acuity. Years of dynamic analysis of corneal topography indicates a long-term stability of refraction after Lasik.

**Conclusion:** Analysis of clinical - functional results of the correction of refractive errors by LASIK, using the "Microscan Vizum" showed high efficacy and safety, as well as high predictability of excimer laser refractive operations. This technology demonstrates the usefulness of refractive surgery in patients after penetrating keratoplasty with severe refractive errors combined with anisometropia, which can significantly improve visual function and efficiency of spectacle correction, contributing to more successful medical-social and professional rehabilitation.

## ICL vs LASIK

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**Purpose:** To compare the findings of moderate and high myopia correction using excimer laser vs ICL.

**Methods:** The 108 eyes of 57 patients were treated with ICL implantation and 2688 eyes of 1376 patients were undergone LASIK to correct low and high myopia. Spherical equivalent (SE) from 5.0 to 18.0 D, astigmatism (A) from 0.5 to 6.0 D in ICL cases and (SE) from 3.5 to 12.0 D, astigmatism (A) from 0.5 to 6.0 D in Lasik cases.

**Results:** In every case Post Op UCVA was 20/40 or more. In 3% the loss of 2 lines of acuity was observed in LASIK group. VA lost by the two line. UCVA was higher in ICL cases. UCVA 20/20/